DMX REFERENCE

CP3 WASH

CINDY



Manufacturer	CINDY
GDTF file	CINDY_CP3_WASH_141412.gdtf
GDTF revision	Build No 1 · 2026-05-05
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1 About this manual

This document describes the CP3 WASH by CINDY. It was compiled from the GDTF file CINDY_CP3_WASH_141412.gdtf from the GDTF-Share library.

File revision: “Build No 1”.

The DMX modes, the channel functions and the technical data are given as the GDTF file states them. Installation, operation from the device's control panel, service and safety instructions are described in the manufacturer's original user manual, which takes precedence over this document.

This document was not issued or endorsed by CINDY; product names and trademarks belong to their owners.

Safety notices are marked with signal words according to the severity of the hazard: DANGER – an imminent hazard that will result in death or serious injury; WARNING – a potential hazard that could result in death or serious injury; CAUTION – a potential hazard that could result in minor injury or property damage; NOTE – additional information for correct and safe use.

> **NOTE** This product is designed for stage and effect lighting. It is not suitable for household room illumination.

2 Quick reference

Parameter	Value
Weight	15.1 kg

DMX modes

Mode	Channels	Units in one universe	First start addresses
217ch	217	2	1, 218
179ch	179	2	1, 180
97ch	97	5	1, 98, 195, 292, ...
21ch	21	24	1, 22, 43, 64, ...

No light? Check these channels

- 217ch: CH 17 Shutter at 20–24 “Shutter Open” or 65–69, 85–89, 105–109, 125–129, 145–149, 165–169, 185–189, 205–209, 225–229, 245–255 “Open”
- 179ch: CH 17 Shutter at 20–24 “Shutter Open” or 65–69, 85–89, 105–109, 125–129, 145–149, 165–169, 185–189, 205–209, 225–229, 245–255 “Open”
- 97ch: CH 15 Shutter at 20–24 “Shutter Open” or 65–69, 85–89, 105–109, 125–129, 145–149, 165–169, 185–189, 205–209, 225–229, 245–255 “Open”
- 21ch: CH 15 Shutter at 20–24 “Shutter Open” or 65–69, 85–89, 105–109, 125–129, 145–149, 165–169, 185–189, 205–209, 225–229, 245–255 “Open”


Read the manual before use


Do not stare into the light


Indoor use only

3 Safety instructions



Read the manual before use



Do not stare into the light



Indoor use only

⚠ WARNING

- This device is intended for professional use. Installation, connection, setup and maintenance must be carried out only by suitably qualified persons who have read this manual.
- Use the device only for its intended purpose and as described in this manual.
- Do not open the housing and do not modify or tamper with the device. Refer all repairs to an authorized service center.
- Do not use the device if its housing, power or data cable, or a connector is damaged, if the device has been dropped, or if liquid or a foreign object has entered it. In such a case, have it checked by a service center.
- Disconnect the device from the power supply before cleaning, maintenance or any work on the connections.
- After moving the device from a cold to a warm environment, let it reach room temperature before switching it on to prevent condensation inside.
- The device is not a toy; keep it out of the reach of children.

⚠ WARNING

- This device is designed for indoor use only. Protect it from rain, splashing water, moisture and dust, and do not place containers with liquids on it.
- Do not operate the device in high humidity, near water, or where condensation can form on it.

⚠ CAUTION

- This device emits intense light. Do not look directly into the light source or the beam at close range; doing so may damage your eyes.
- Do not aim the beam at the eyes of people or animals at close range, and do not view the light source through optical instruments (binoculars, camera lenses).
- Do not aim the beam at flammable or heat-sensitive materials at close range.

⚠ CAUTION

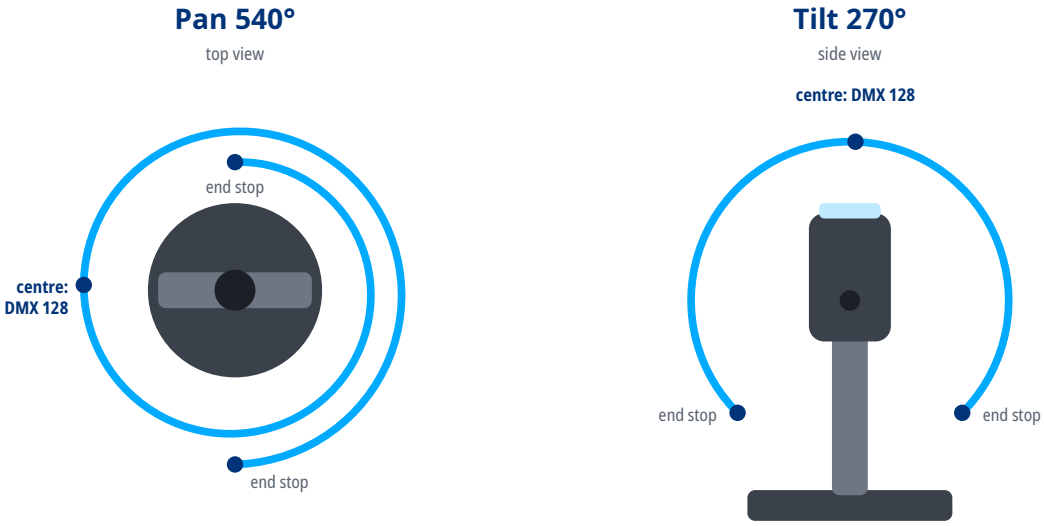
- Strobe and fast flashing light effects can trigger epileptic seizures in susceptible people (photosensitive epilepsy) and can cause nausea or disorientation.
- Inform the audience and performers in advance that strobe effects will be used, for example with a notice at the entrance, and do not use them longer than necessary.

⚠ WARNING

- The moving parts of the device (for example the head or arms) can move quickly and unexpectedly at any time – after power-on, during a reset, or on a command from the controller.
- Keep yourself and any objects out of the range of movement. While the device is switched on, do not touch the moving parts, move them by hand, or obstruct their movement; this can cause injury (pinching) and damage the drive.
- Do not carry the device by its moving parts. If the device has a transport lock, engage it before transport and release it before switching on.

4 Product description

Range of movement



5 Installation

⚠ WARNING

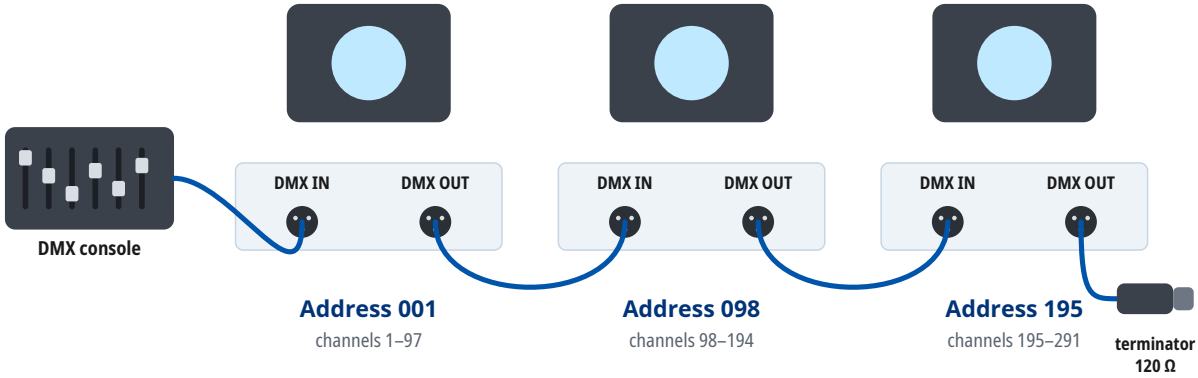
- Rigging must be carried out only by qualified persons in accordance with applicable regulations, in particular those for work at height.
- The supporting structure and fixings must safely carry the weight of all suspended devices; verify their load capacity in advance.
- Weight of the device: 15.1 kg.
- Use suitable mounting hardware (for example truss clamps) and tighten all screw connections properly.
- Always secure the suspended device against falling with a safety cable of adequate load capacity, routed through a fixed point of the device and around the supporting structure.
- During installation and removal, keep people out of the area below the work position.
- Regularly inspect the fixings and the safety cable for damage, corrosion and loosening.

6 Connections

- Use shielded cable designed for DMX512 with an impedance of 110 Ω. Ordinary microphone cable is not suitable for DMX, especially over longer distances.

- Connect the devices in a daisy chain: connect the DMX OUT of one device to the DMX IN of the next. Do not split the line with Y-cables or wire it in a star; the line may be split only with a DMX splitter.
- Connect the shield to pin 1 only. Do not connect the shield (ground) to the metal shell of the connector; this can cause short circuits or erratic behavior.
- XLR pin assignment: pin 1 – shield (ground), pin 2 – Data- (Data Complement), pin 3 – Data+ (Data True). On 5-pin connectors, pins 4 and 5 are not connected; a 5-pin connector can be connected to a 3-pin one with a cable adapter.
- Terminate the end of the line (for impedance matching): plug an XLR connector with a 120 Ω, ¼ W resistor between pins 2 and 3 into the DMX OUT of the last device. This reduces the risk of erratic behavior.
- Connect no more than 32 devices to one DMX line. For more devices or longer runs, use a DMX splitter or booster.

DMX line



Mode 97ch: every unit occupies 97 channels from its address. At most 32 units on one line; for more units or longer runs use a DMX splitter. A 120 Ω terminator closes the last DMX OUT.

7 Operation

Setting the DMX address

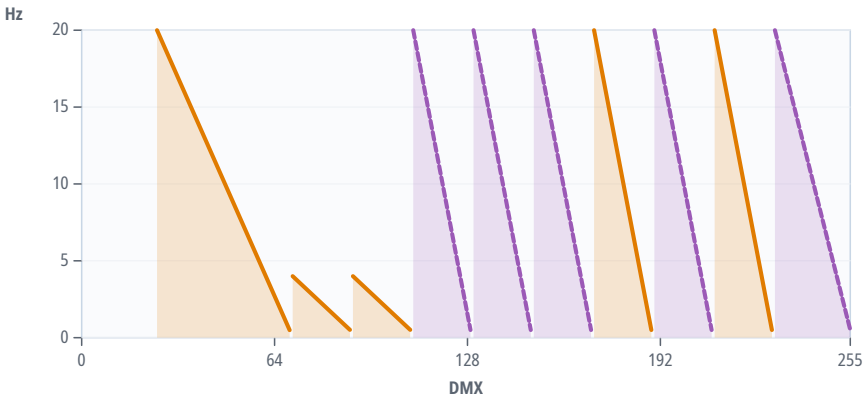
- The device occupies as many consecutive channels in the DMX universe as the selected DMX mode uses, starting at the set start address.
- Number of channels occupied in the DMX mode “217ch”: 217.
- Choose start addresses so that the channels of individual devices do not overlap and the last occupied channel does not exceed 512. Devices with the same start address and mode respond identically.
- For several devices in a row in the DMX mode “217ch”, you can use, for example, the start addresses 1, 218.
- The DMX mode set on the device must match the fixture profile (personality) used in the controller.

8 Functions at a glance

Functions in each DMX mode

	217ch 217 channels	179ch 179 channels	97ch 97 channels	21ch 21 channels
Pan / Tilt	**1, 3**	**1, 3**	**1, 3**	**1, 3**
Dimmer	**20 channels (15–208)**	**15**	**14**	**14**
Dimmer resolution	16 bit	16 bit	8 bit	8 bit
Shutter / strobe	**17**	**17**	**15**	**15**
Color mixing	**80 channels (20–216)**	**80× (20–178)**	**18–97**	**18–21**
Color temperature	**6, 7, 12**	**6, 7, 12**	**6, 7, 12**	**6, 7, 12**
Zoom	**18**	**18**	**16**	**16**
Effects / macros	**7–12**	**7–12**	**7–12**	**7–12**
Pixel control	**19 cells**	**20 cells**	**19 cells**	

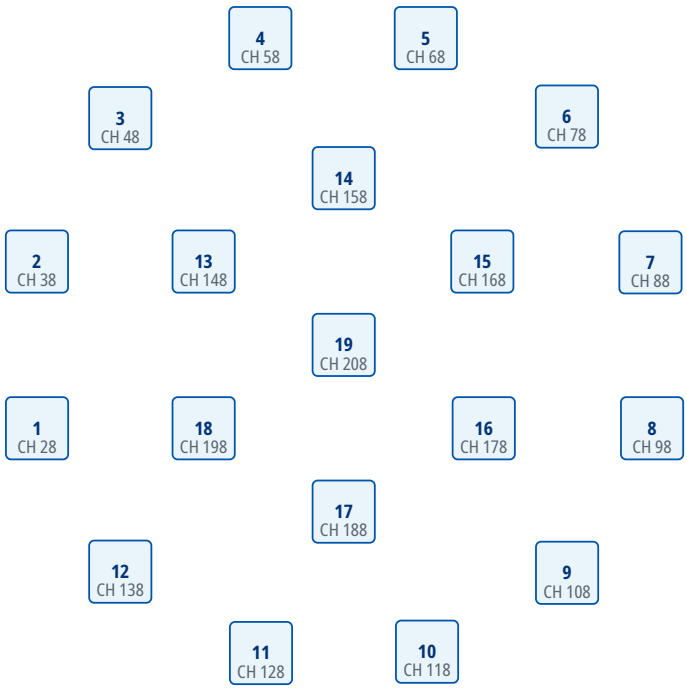
Strobe rate



CH 17 · 217ch

- 25–69: 20–0.49 Hz Strobe
- 70–89: 4–0.51 Hz PulseOpen
- 90–109: 4–0.51 Hz PulseClose
- 110–129: 20–0.5 Hz StrobeRandom
- 130–149: 20–0.5 Hz RandomPulseClose
- 150–169: 20–0.5 Hz RandomPulseOpen
- 170–189: 20–0.5 Hz StrobePulse
- 190–209: 20–0.5 Hz StrobeRandomPulse

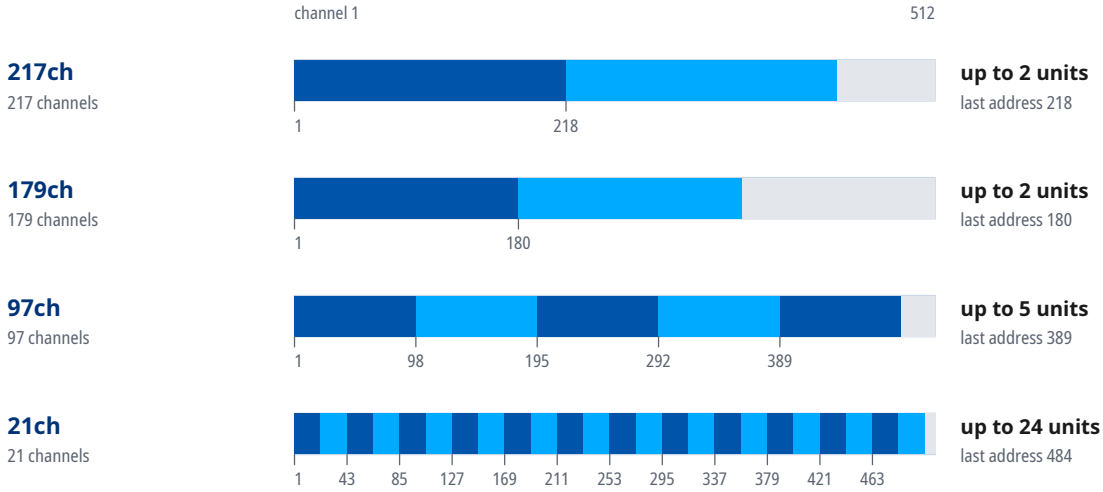
Cells (pixels)



19 cells where the GDTF file places them (seen from above), numbered by their first DMX channel (CH) in the mode “217ch”.

9 DMX channels

Units in one DMX universe



Start addresses of 20 units in the mode “217ch”

Unit	Start address	Unit	Start address	Unit	Start address	Unit	Start address
1	1	6	U3 · 218	11	U6 · 1	16	U8 · 218
2	218	7	U4 · 1	12	U6 · 218	17	U9 · 1
3	U2 · 1	8	U4 · 218	13	U7 · 1	18	U9 · 218
4	U2 · 218	9	U5 · 1	14	U7 · 218	19	U10 · 1
5	U3 · 1	10	U5 · 218	15	U8 · 1	20	U10 · 218

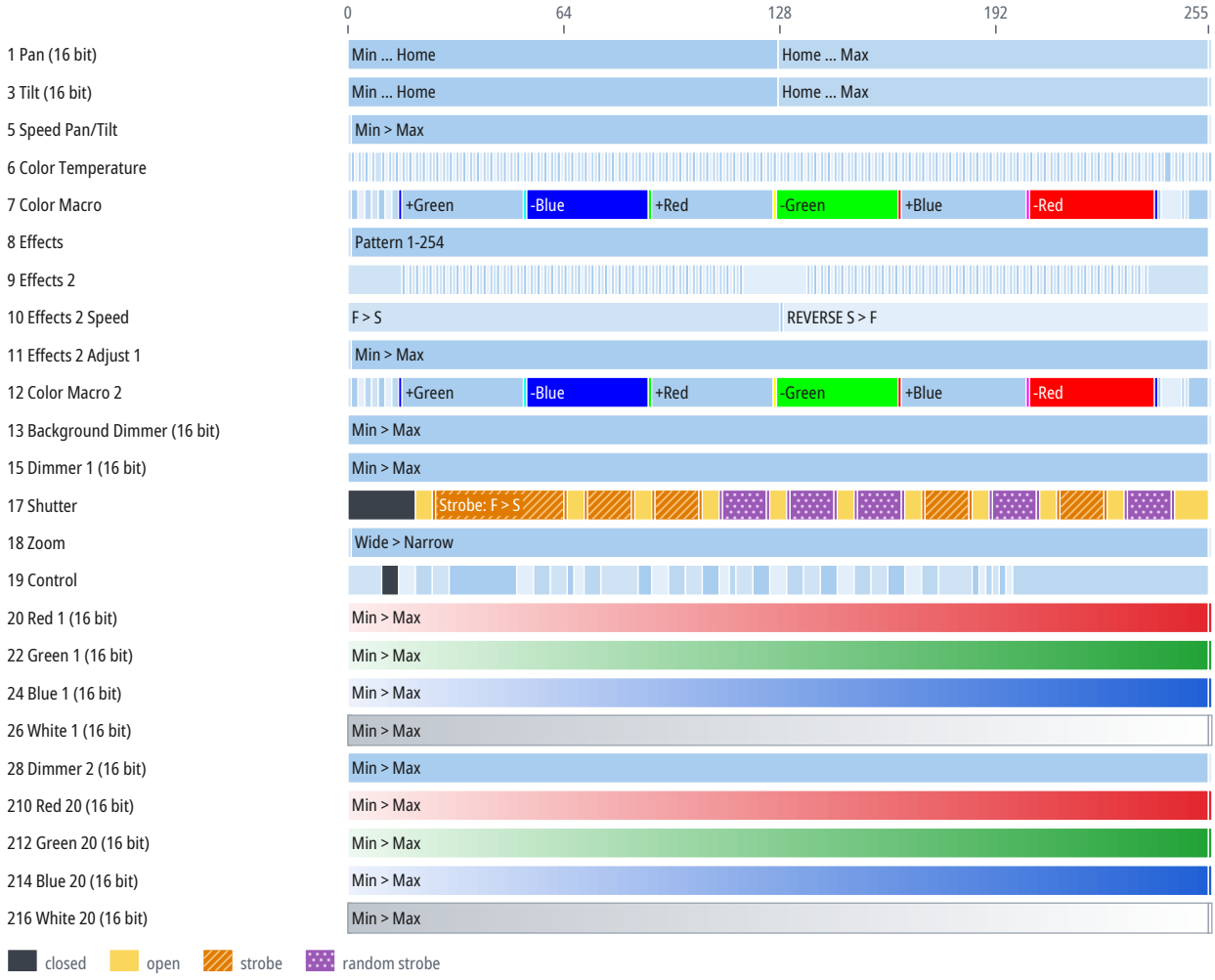
Where a DMX universe is full, the next units continue in the next universe: “U2 · 1” is address 1 in the second universe, counted from the universe of the first unit.

Mode 217ch

16-bit parameters use two channels, coarse and fine: value = 256 × coarse value + fine value.

If the device receives DMX in this mode but gives no light, check these channels: CH 17 Shutter at 20–24 “Shutter Open” or 65–69, 85–89, 105–109, 125–129, 145–149, 165–169, 185–189, 205–209, 225–229, 245–255 “Open”. The GDTF file gives these values for a console's Highlight function: CH 6 Color Temperature 0, CH 7 Color Macro 0, CH 12 Color Macro 2 0, CH 15 Dimmer 1 255, CH 20 Red 255 (the same in each of the 19 cells), CH 22 Green 255 (the same in each of the 19 cells), CH 24 Blue 255 (the same in each of the 19 cells), CH 26 White 255 (the same in each of the 19 cells), CH 28 Dimmer 255 (the same in each of the 19 cells), CH 210 Red 20 255, CH 212 Green 20 255, CH 214 Blue 20 255, CH 216 White 20 255.

Channel functions at a glance



CH	Function	DMX	Description
1	Pan	0–127	Min ... Home
		127	Home
		128–255	Home ... Max
		255	Max
2	Pan Fine	0–255	Fine adjustment of CH 1
3	Tilt	0–127	Min ... Home
		127	Home
		128–255	Home ... Max

CH	Function	DMX	Description
3	Tilt (continued)	255	Max
4	Tilt Fine	0–255	Fine adjustment of CH 3
5	Speed Pan/Tilt		P/T SPEED
		0	Min
		1–254	Min > Max
		255	Max
6	Color Temperature	0	CTC OPEN: Open
		1	19000K - CTC
		2	18900K - CTC
		3	18900K - CTC ... 18800K - CTC
		4	18800K - CTC
		5	18800K - CTC ... 18700K - CTC
		6	18700K - CTC
		7	18600K - CTC
		8–9	18500K - CTC
		10	18400K - CTC
		11	18400K - CTC ... 18300K - CTC
		12	18300K - CTC
		13	18200K - CTC
		14	18200K - CTC ... 18100K - CTC
		15	18100K - CTC
		16	18000K - CTC
		17	18000K - CTC ... 17900K - CTC
		18	17900K - CTC
		19	17800K - CTC
		20	17800K - CTC ... 17700K - CTC
		21	17700K - CTC
		22	17600K - CTC
		23	17600K - CTC ... 17500K - CTC
		24	17500K - CTC
		25	17500K - CTC ... 17400K - CTC
		26	17400K - CTC
		27	17300K - CTC
		28	17300K - CTC ... 17200K - CTC
		29	17200K - CTC
		30	17100K - CTC
		31	17100K - CTC ... 17000K - CTC
		32	17000K - CTC
		33	16900K - CTC
		34	16900K - CTC ... 16800K - CTC
		35	16800K - CTC
		36	16800K - CTC ... 16700K - CTC

CH	Function	DMX	Description
6	Color Temperature (continued)	37	16700K - CTC
		38	16600K - CTC
		39	16600K - CTC ... 16500K - CTC
		40	16500K - CTC
		41	16400K - CTC
		42	16400K - CTC ... 16300K - CTC
		43	16300K - CTC
		44	16200K - CTC
		45	16200K - CTC ... 16100K - CTC
		46	16100K - CTC
		47	16000K - CTC
		48	16000K - CTC ... 15900K - CTC
		49	15900K - CTC
		50	15900K - CTC ... 15800K - CTC
		51	15800K - CTC
		52	15700K - CTC
		53	15700K - CTC ... 157600K - CTC
		54	157600K - CTC
		55	15500K - CTC
		56	15500K - CTC ... 15400K - CTC
		57	15400K - CTC
		58	15300K - CTC
		59	15300K - CTC ... 15200K - CTC
		60	15200K - CTC
		61	15200K - CTC ... 15100K - CTC
		62	15100K - CTC
		63	15000K - CTC
		64	15000K - CTC ... 14900K - CTC
		65	14900K - CTC
		66	14800K - CTC
		67	14800K - CTC ... 14700K - CTC
		68	14700K - CTC
		69	14600K - CTC
		70	14600K - CTC ... 14500K - CTC
		71	14500K - CTC
		72	14400K - CTC
		73	14400K - CTC ... 14300K - CTC
		74	14300K - CTC
		75	14300K - CTC ... 14200K - CTC
		76	14200K - CTC
		77	14100K - CTC
		78	14100K - CTC ... 14000K - CTC

CH	Function	DMX	Description
6	Color Temperature (continued)	79	14000K - CTC
		80	13900K - CTC
		81	13900K - CTC ... 13800K - CTC
		82	13800K - CTC
		83	13700K - CTC
		84	13700K - CTC ... 13600K - CTC
		85	13600K - CTC
		86	13500K - CTC
		87	13500K - CTC ... 13400K - CTC
		88	13400K - CTC
		89	13400K - CTC ... 13300K - CTC
		90	13300K - CTC
		91	13200K - CTC
		92	13200K - CTC ... 13100K - CTC
		93	13100K - CTC
		94	13000K - CTC
		95	13000K - CTC ... 12900K - CTC
		96	12900K - CTC
		97	12800K - CTC
		98	12800K - CTC ... 12700K - CTC
		99	12700K - CTC
		100	12700K - CTC ... 12600K - CTC
		101	12600K - CTC
		102	12500K - CTC
		103	12500K - CTC ... 12400K - CTC
		104	12400K - CTC
		105	12300K - CTC
		106	12300K - CTC ... 12200K - CTC
		107	12200K - CTC
		108	12100K - CTC
		109	12100K - CTC ... 12000K - CTC
		110	12000K - CTC
		111	12000K - CTC ... 11900K - CTC
		112	11900K - CTC
		113	11800K - CTC
		114	11800K - CTC ... 11700K - CTC
		115	11700K - CTC
		116	11600K - CTC
		117	11600K - CTC ... 11500K - CTC
		118	11500K - CTC
		119	11400K - CTC
		120	11400K - CTC ... 11300K - CTC

CH	Function	DMX	Description
6	Color Temperature (continued)	121	11300K - CTC
		122	11200K - CTC
		123	11200K - CTC ... 11100K - CTC
		124	11100K - CTC
		125	11000K - CTC
		126	11000K - CTC ... 10900K - CTC
		127	10900K - CTC
		128	10900K - CTC ... 10800K - CTC
		129	10800K - CTC
		130	10700K - CTC
		131	10700K - CTC ... 10600K - CTC
		132	10600K - CTC
		133	10500K - CTC
		134	10500K - CTC ... 10400K - CTC
		135	10400K - CTC
		136	10300K - CTC
		137	10300K - CTC ... 10200K - CTC
		138	10200K - CTC
		139	10200K - CTC ... 10100K - CTC
		140	10100K - CTC
		141	10000K - CTC
		142	10000K - CTC ... 9900K - CTC
		143	9900K - CTC
		144	9800K - CTC
		145	9800K - CTC ... 9700K - CTC
		146	9700K - CTC
		147	9600K - CTC
		148	9600K - CTC ... 9500K - CTC
		149	9500K - CTC
		150	9400K - CTC
		151	9400K - CTC ... 9300K - CTC
		152	9300K - CTC
		153	9300K - CTC ... 9200K - CTC
		154	9200K - CTC
		155	9100K - CTC
		156	9100K - CTC ... 9000K - CTC
		157	9000K - CTC
		158	8900K - CTC
		159	8900K - CTC ... 8800K - CTC
		160	8800K - CTC
		161	8700K - CTC
		162	8700K - CTC ... 8600K - CTC

CH	Function	DMX	Description
6	Color Temperature (continued)	163	8600K - CTC
		164	8500K - CTC
		165	8500K - CTC ... 8400K - CTC
		166	8400K - CTC
		167	8300K - CTC
		168	8300K - CTC ... 8200K - CTC
		169	8200K - CTC
		170	8200K - CTC ... 8100K - CTC
		171	8100K - CTC
		172	8000K - CTC
		173	8000K - CTC ... 7900K - CTC
		174	7900K - CTC
		175	7800K - CTC
		176	7800K - CTC ... 7700K - CTC
		177	7700K - CTC
		178	7600K - CTC
		179	7600K - CTC ... 7500K - CTC
		180	7500K - CTC
		181	7500K - CTC ... 7400K - CTC
		182	7400K - CTC
		183	7300K - CTC
		184	7300K - CTC ... 7200K - CTC
		185	7200K - CTC
		186	7100K - CTC
		187	7100K - CTC ... 7000K - CTC
		188	7000K - CTC
		189	6900K - CTC
		190	6900K - CTC ... 6800K - CTC
		191	6800K - CTC
		192	6800K - CTC ... 6700K - CTC
		193	6700K - CTC
		194	6600K - CTC
		195	6600K - CTC ... 6500K - CTC
		196	6500K - CTC
		197	6400K - CTC
		198	6400K - CTC ... 6300K - CTC
		199	6300K - CTC
		200	6200K - CTC
		201	6200K - CTC ... 6100K - CTC
		202	6100K - CTC
		203	6000K - CTC
		204	6000K - CTC ... 5900K - CTC

CH	Function	DMX	Description
6	Color Temperature (continued)	205	5900K - CTC
		206	5900K - CTC ... 5800K - CTC
		207	5800K - CTC
		208	5700K - CTC
		209	5700K - CTC ... 5600K - CTC
		210	5600K - CTC
		211	5500K - CTC
		212	5500K - CTC ... 5400K - CTC
		213	5400K - CTC
		214	5300K - CTC
		215	5300K - CTC ... 5200K - CTC
		216	5200K - CTC
		217	5100K - CTC
		218	5100K - CTC ... 5000K - CTC
		219	5000K - CTC
		220	5000K - CTC ... 4900K - CTC
		221	4900K - CTC
		222	4800K - CTC
		223	4800K - CTC ... 4700K - CTC
		224	4700K - CTC
		225	4600K - CTC
		226	4600K - CTC ... 4500K - CTC
		227	4500K - CTC
		228	4400K - CTC
		229	4400K - CTC ... 4300K - CTC
		230	4300K - CTC
		231	4300K - CTC ... 4200K - CTC
		232	4200K - CTC
		233	4100K - CTC
		234	4100K - CTC ... 4000K - CTC
		235	4000K - CTC
		236	3900K - CTC
		237	3900K - CTC ... 3800K - CTC
		238	3800K - CTC
		239	3700K - CTC
		240	3700K - CTC ... 3600K - CTC
		241	3600K - CTC
		242–243	3500K - CTC
		244	3400K - CTC
		245	3400K - CTC ... 3300K - CTC
		246	3300K - CTC
		247	3200K - CTC

CH	Function	DMX	Description
6	Color Temperature (continued)	248	3200K - CTC ... 3100K - CTC
		249	3100K - CTC
		250	3000K - CTC
		251	3000K - CTC ... 2900K - CTC
		252	2900K - CTC
		253	2800K - CTC
		254	2800K - CTC ... 2700K - CTC
		255	2700K - CTC
7	Color Macro	0	COLOR MACRO OPEN: Open
		1–2	White 2700K - CTC
		3–4	White 3200K - CTC
		5–6	White 4000K - CTC
		7–8	White 4200K - CTC
		9–10	White 5600K - CTC
		11–12	White 6500K - CTC
		13–14	White 7500K - CTC
		15	Blue
		16–51	+Green
		52	Cyan
		53–88	-Blue
		89	Green
		90–125	+Red
		126	Yellow
		127–162	-Green
		163	Red
		164–200	+Blue
		201	Magenta
		202–238	-Red
		239	Blue
		240	COLOR EFFECT FADE: Fast
		241–246	COLOR EFFECT FADE: Fast > Slow
		247	COLOR EFFECT FADE: Slow
		248	COLOR EFFECT SNAP: Fast
		249–254	COLOR EFFECT SNAP: Fast > Slow
		255	COLOR EFFECT SNAP: Slow
8	Effects	0	Pattern Open
		1–255	Pattern 1-254
9	Effects 2	0–15	LED Built-In Open
		16–116	LED Built-In Movement - 1...101
		117–135	LED Built-In Movement - 102 (Main)
		136–176	LED Built-In RGB - 1...41
		177	LED Built-In RGB - 41 ... LED Built-In RGB - 42

CH	Function	DMX	Description
9	Effects 2 (continued)	178–236	LED Built-In RGB - 42...100
		237–255	LED Built-In RGB - 101
10	Effects 2 Speed		LED BUILT-IN SPEED
		0–127	F > S (10–0.1 Hz)
		128	Stop
		129–255	REVERSE S > F (0.1–10 Hz)
11	Effects 2 Adjust 1		LED BUILT-IN DELAY
		0	Min
		1–254	Min > Max
		255	Max
12	Color Macro 2	0	BACKGROUND COLOR MACRO OPEN: Open
		1–2	White 2700K - CTC
		3–4	White 3200K - CTC
		5–6	White 4000K - CTC
		7–8	White 4200K - CTC
		9–10	White 5600K - CTC
		11–12	White 6500K - CTC
		13–14	White 7500K - CTC
		15	Blue
		16–51	+Green
		52	Cyan
		53–88	-Blue
		89	Green
		90–125	+Red
		126	Yellow
		127–162	-Green
		163	Red
		164–200	+Blue
		201	Magenta
		202–238	-Red
		239	Blue
		240	BACKGROUND COLOR EFFECT FADE: Fast
		241–246	BACKGROUND COLOR EFFECT FADE: Fast > Slow
		247	BACKGROUND COLOR EFFECT FADE: Slow
		248	BACKGROUND COLOR EFFECT SNAP: Fast
		249–254	BACKGROUND COLOR EFFECT SNAP: Fast > Slow
		255	BACKGROUND COLOR EFFECT SNAP: Slow
13	Background Dimmer	0	Min
		0–255	Min > Max
		255	Max
14	Background Dimmer Fine	0–255	Fine adjustment of CH 13
15	Dimmer 1	0	Min

CH	Function	DMX	Description
15	Dimmer 1 (continued)	0–255	Min > Max
		255	Max
16	Dimmer 1 Fine	0–255	Fine adjustment of CH 15
17	Shutter	0–19	Shutter Closed
		20–24	Shutter Open
		25	Strobe: Fast
		26–63	Strobe: F > S
		64	Strobe: Slow
		65–69	Strobe: Open
		70	Pulse Open: Fast
		71–83	Pulse Open: F > S
		84	Pulse Open: Slow
		85–89	Pulse Open: Open
		90	Pulse Close: Fast
		91–103	Pulse Close: F > S
		104	Pulse Close: Slow
		105–109	Pulse Close: Open
		110	Strobe Random: Fast
		111–123	Strobe Random: F > S
		124	Strobe Random: Slow
		125–129	Strobe Random: Open
		130	Random Pulse Close: Fast
		131–143	Random Pulse Close: F > S
		144	Random Pulse Close: Slow
		145–149	Random Pulse Close: Open
		150	Random Pulse Open: Fast
		151–163	Random Pulse Open: F > S
		164	Random Pulse Open: Slow
		165–169	Random Pulse Open: Open
		170	Strobe Pulse: Fast
		171–183	Strobe Pulse: F > S
		184	Strobe Pulse: Slow
		185–189	Strobe Pulse: Open
		190	Strobe Random Pulse: Fast
		191–203	Strobe Random Pulse: F > S
		204	Strobe Random Pulse: Slow
		205–209	Strobe Random Pulse: Open
		210	Strobe Fade: Fast
		211–223	Strobe Fade: F > S
		224	Strobe Fade: Slow
		225–229	Strobe Fade: Open
		230	Strobe Random Pulse: Fast

CH	Function	DMX	Description
17	Shutter (continued)	231–243	Strobe Random Pulse: F > S
		244	Strobe Random Pulse: Slow
		245–255	Strobe Random Pulse: Open
18	Zoom	0	Wide
		1–254	Wide > Narrow
		255	Narrow
19	Control	0–9	No Func
		10–14	P/T Blackout
		15–19	P/T Blackout ... RGBW
		20–24	RGBW
		25–29	CMY
		30–49	CMY ... Pan Reset
		50–54	Pan Reset
		55–59	Tilt Reset
		60–64	Zoom Reset
		65–66	Zoom Theater Reset Mode ON
		67–69	Zoom Theater Reset Mode OFF
		70–74	All Reset
		75–85	All Reset ... Pan Reverse
		86–89	Pan Reverse
		90–94	Tilt Reverse
		95–99	Pan Normal
		100–104	Tilt Normal
		105–109	Tilt Normal ... Preset Color HTP ON
		110–112	Preset Color HTP ON
		113–114	Preset Color HTP OFF
		115–119	Preset Color HTP OFF ... Fan ECO
		120–124	Fan ECO
		125–129	Fan Full
		130–134	Fan Auto
		135–139	Dimmer Fast
		140–144	Dimmer Smooth
		145–149	Dimmer Curve - Linear
		150–154	Dimmer Curve - Square
		155–159	Dimmer Curve - I Square
		160–164	Dimmer Curve - Scurve
		165–169	White Mode
		170–174	Full Mode
		175–184	Full Mode ... PWM 600Hz
		185–186	PWM 600Hz
		187–188	PWM 1200Hz
		189–190	PWM 2000Hz

CH	Function	DMX	Description
19	Control (continued)	191–192	PWM 4000Hz
		193–194	PWM 6000Hz
		195–196	PWM 15000Hz
		197–255	Control 1 1
20	Red 1	0	Min
		0–255	Min > Max
		255	Max
21	Red 1 Fine	0–255	Fine adjustment of CH 20
22	Green 1	0	Min
		0–255	Min > Max
		255	Max
23	Green 1 Fine	0–255	Fine adjustment of CH 22
24	Blue 1	0	Min
		0–255	Min > Max
		255	Max
25	Blue 1 Fine	0–255	Fine adjustment of CH 24
26	White 1	0	Min
		0–255	Min > Max
		255	Max
27	White 1 Fine	0–255	Fine adjustment of CH 26
28	Dimmer 2	0	Min
		0–255	Min > Max
		255	Max
29	Dimmer 2 Fine	0–255	Fine adjustment of CH 28
210	Red 20	0	Min
		0–255	Min > Max
		255	Max
211	Red 20 Fine	0–255	Fine adjustment of CH 210
212	Green 20	0	Min
		0–255	Min > Max
		255	Max
213	Green 20 Fine	0–255	Fine adjustment of CH 212
214	Blue 20	0	Min
		0–255	Min > Max
		255	Max
215	Blue 20 Fine	0–255	Fine adjustment of CH 214
216	White 20	0	Min
		0–255	Min > Max
		255	Max
217	White 20 Fine	0–255	Fine adjustment of CH 216

CH 20–209: 19 cells of 10 channels each. Every cell works as cell 1 in the table above (CH 20–29); the table below gives each cell's channel numbers.

Cell	Red	Red Fine	Green	Green Fine	Blue	Blue Fine	White	White Fine	Dimmer	Dimmer Fine
1	20	21	22	23	24	25	26	27	28	29
2	30	31	32	33	34	35	36	37	38	39
3	40	41	42	43	44	45	46	47	48	49
4	50	51	52	53	54	55	56	57	58	59
5	60	61	62	63	64	65	66	67	68	69
6	70	71	72	73	74	75	76	77	78	79
7	80	81	82	83	84	85	86	87	88	89
8	90	91	92	93	94	95	96	97	98	99
9	100	101	102	103	104	105	106	107	108	109
10	110	111	112	113	114	115	116	117	118	119
11	120	121	122	123	124	125	126	127	128	129
12	130	131	132	133	134	135	136	137	138	139
13	140	141	142	143	144	145	146	147	148	149
14	150	151	152	153	154	155	156	157	158	159
15	160	161	162	163	164	165	166	167	168	169
16	170	171	172	173	174	175	176	177	178	179
17	180	181	182	183	184	185	186	187	188	189
18	190	191	192	193	194	195	196	197	198	199
19	200	201	202	203	204	205	206	207	208	209

Mode 179ch

16-bit parameters use two channels, coarse and fine: value = 256 × coarse value + fine value.

If the device receives DMX in this mode but gives no light, check these channels: CH 17 Shutter at 20–24 “Shutter Open” or 65–69, 85–89, 105–109, 125–129, 145–149, 165–169, 185–189, 205–209, 225–229, 245–255 “Open”. The GDTF file gives these values for a console's Highlight function: CH 6 Color Temperature 0, CH 7 Color Macro 0, CH 12 Color Macro 2 0, CH 15 Dimmer 255, CH 20 Red 255 (the same in each of the 20 cells), CH 22 Green 255 (the same in each of the 20 cells), CH 24 Blue 255 (the same in each of the 20 cells), CH 26 White 255 (the same in each of the 20 cells).

Channel functions at a glance



CH	Function	DMX	Description
1	Pan		Same as CH 1 in the mode “217ch” (p. 10)
2	Pan Fine	0–255	Fine adjustment of CH 1
3	Tilt		Same as CH 3 in the mode “217ch” (p. 10)
4	Tilt Fine	0–255	Fine adjustment of CH 3
5	Speed Pan/Tilt		Same as CH 5 in the mode “217ch” (p. 11)
6	Color Temperature		Same as CH 6 in the mode “217ch” (p. 11)
7	Color Macro		Same as CH 7 in the mode “217ch” (p. 17)
8	Effects	0	Pattern Open
		1–255	Pattern 1-255
9	Effects 2		Same as CH 9 in the mode “217ch” (p. 17)
10	Effects 2 Speed		LED BUILT-IN SPEED
		0–127	F > S - Speed (10–0.1 Hz)
		128	Stop

CH	Function	DMX	Description
10	Effects 2 Speed (continued)	129–255	S > F - Speed (0.1–10 Hz)
11	Effects 2 Adjust 1		Same as CH 11 in the mode “217ch” (p. 18)
12	Color Macro 2		Same as CH 12 in the mode “217ch” (p. 18)
13	Background Dimmer		Same as CH 13 in the mode “217ch” (p. 18)
14	Background Dimmer Fine	0–255	Fine adjustment of CH 13
15	Dimmer	0	Min
		0–255	Min > Max
		255	Max
16	Dimmer Fine	0–255	Fine adjustment of CH 15
17	Shutter		Same as CH 17 in the mode “217ch” (p. 19)
18	Zoom		Same as CH 18 in the mode “217ch” (p. 20)
19	Control		Same as CH 19 in the mode “217ch” (p. 20)
20	Red 1	0	Min
		0–255	Min > Max
		255	Max
21	Red 1 Fine	0–255	Fine adjustment of CH 20
22	Green 1	0	Min
		0–255	Min > Max
		255	Max
23	Green 1 Fine	0–255	Fine adjustment of CH 22
24	Blue 1	0	Min
		0–255	Min > Max
		255	Max
25	Blue 1 Fine	0–255	Fine adjustment of CH 24
26	White 1	0	Min
		0–255	Min > Max
		255	Max
27	White 1 Fine	0–255	Fine adjustment of CH 26

CH 20–179: 20 cells of 8 channels each. Every cell works as cell 1 in the table above (CH 20–27); the table below gives each cell's channel numbers.

Cell	Red	Red Fine	Green	Green Fine	Blue	Blue Fine	White	White Fine
1	20	21	22	23	24	25	26	27
2	28	29	30	31	32	33	34	35
3	36	37	38	39	40	41	42	43
4	44	45	46	47	48	49	50	51
5	52	53	54	55	56	57	58	59
6	60	61	62	63	64	65	66	67
7	68	69	70	71	72	73	74	75
8	76	77	78	79	80	81	82	83
9	84	85	86	87	88	89	90	91
10	92	93	94	95	96	97	98	99
11	100	101	102	103	104	105	106	107

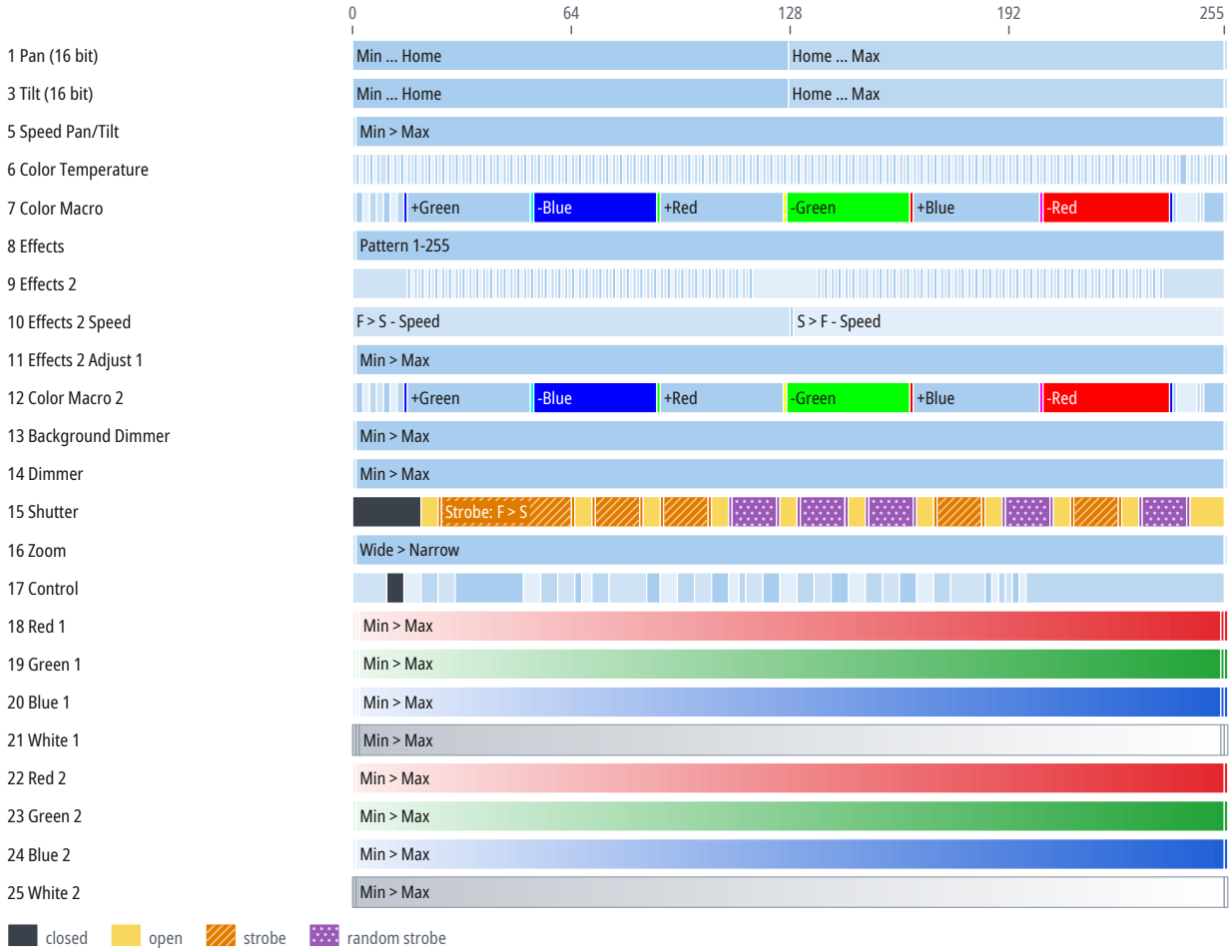
Cell	Red	Red Fine	Green	Green Fine	Blue	Blue Fine	White	White Fine
12	108	109	110	111	112	113	114	115
13	116	117	118	119	120	121	122	123
14	124	125	126	127	128	129	130	131
15	132	133	134	135	136	137	138	139
16	140	141	142	143	144	145	146	147
17	148	149	150	151	152	153	154	155
18	156	157	158	159	160	161	162	163
19	164	165	166	167	168	169	170	171
20	172	173	174	175	176	177	178	179

Mode 97ch

16-bit parameters use two channels, coarse and fine: value = 256 × coarse value + fine value.

If the device receives DMX in this mode but gives no light, check these channels: CH 15 Shutter at 20–24 “Shutter Open” or 65–69, 85–89, 105–109, 125–129, 145–149, 165–169, 185–189, 205–209, 225–229, 245–255 “Open”. The GDTF file gives these values for a console's Highlight function: CH 6 Color Temperature 0, CH 7 Color Macro 0, CH 12 Color Macro 2 0, CH 14 Dimmer 255, CH 18 Red 1 255, CH 19 Green 1 255, CH 20 Blue 1 255, CH 21 White 1 255, CH 22 Red 255 (the same in each of the 19 cells), CH 23 Green 255 (the same in each of the 19 cells), CH 24 Blue 255 (the same in each of the 19 cells), CH 25 White 255 (the same in each of the 19 cells).

Channel functions at a glance



CH	Function	DMX	Description
1	Pan		Same as CH 1 in the mode “217ch” (p. 10)
2	Pan Fine	0–255	Fine adjustment of CH 1
3	Tilt		Same as CH 3 in the mode “217ch” (p. 10)
4	Tilt Fine	0–255	Fine adjustment of CH 3
5	Speed Pan/Tilt		Same as CH 5 in the mode “217ch” (p. 11)
6	Color Temperature		Same as CH 6 in the mode “217ch” (p. 11)
7	Color Macro		Same as CH 7 in the mode “217ch” (p. 17)
8	Effects		Same as CH 8 in the mode “179ch” (p. 23)
9	Effects 2		Same as CH 9 in the mode “217ch” (p. 17)
10	Effects 2 Speed		Same as CH 10 in the mode “179ch” (p. 23)
11	Effects 2 Adjust 1		Same as CH 11 in the mode “217ch” (p. 18)
12	Color Macro 2		Same as CH 12 in the mode “217ch” (p. 18)
13	Background Dimmer	0	Min
		1–254	Min > Max
		255	Max
14	Dimmer	0	Min
		1–254	Min > Max
		255	Max
15	Shutter		Same as CH 17 in the mode “217ch” (p. 19)
16	Zoom		Same as CH 18 in the mode “217ch” (p. 20)
17	Control		Same as CH 19 in the mode “217ch” (p. 20)
18	Red 1	0	Min
		1	Min ... Min > Max
		2–253	Min > Max
		254	Min > Max ... Max
		255	Max
19	Green 1	0	Min
		1	Min ... Min > Max
		2–253	Min > Max
		254	Min > Max ... Max
		255	Max
20	Blue 1	0	Min
		1	Min ... Min > Max
		2–253	Min > Max
		254	Min > Max ... Max
		255	Max
21	White 1	0	Min
		1	Min ... Min > Max
		2–253	Min > Max
		254	Min > Max ... Max
		255	Max

CH	Function	DMX	Description
22	Red 2	0	Min
		1–254	Min > Max
		255	Max
23	Green 2	0	Min
		1–254	Min > Max
		255	Max
24	Blue 2	0	Min
		1–254	Min > Max
		255	Max
25	White 2	0	Min
		1–254	Min > Max
		255	Max

CH 22–97: 19 cells of 4 channels each. Every cell works as cell 1 in the table above (CH 22–25); the table below gives each cell's channel numbers.

Cell	Red	Green	Blue	White	Cell	Red	Green	Blue	White
1	22	23	24	25	2	26	27	28	29
3	30	31	32	33	4	34	35	36	37
5	38	39	40	41	6	42	43	44	45
7	46	47	48	49	8	50	51	52	53
9	54	55	56	57	10	58	59	60	61
11	62	63	64	65	12	66	67	68	69
13	70	71	72	73	14	74	75	76	77
15	78	79	80	81	16	82	83	84	85
17	86	87	88	89	18	90	91	92	93
19	94	95	96	97					

Mode 21ch

16-bit parameters use two channels, coarse and fine: value = 256 × coarse value + fine value.

If the device receives DMX in this mode but gives no light, check these channels: CH 15 Shutter at 20–24 “Shutter Open” or 65–69, 85–89, 105–109, 125–129, 145–149, 165–169, 185–189, 205–209, 225–229, 245–255 “Open”. The GDTF file gives these values for a console's Highlight function: CH 6 Color Temperature 0, CH 7 Color Macro 0, CH 12 Color Macro 2 0, CH 14 Dimmer 255, CH 18 Red 255, CH 19 Green 255, CH 20 Blue 255, CH 21 White 255.

Channel functions at a glance



CH	Function	DMX	Description
1	Pan		Same as CH 1 in the mode “217ch” (p. 10)
2	Pan Fine	0–255	Fine adjustment of CH 1
3	Tilt		Same as CH 3 in the mode “217ch” (p. 10)
4	Tilt Fine	0–255	Fine adjustment of CH 3
5	Speed Pan/Tilt		Same as CH 5 in the mode “217ch” (p. 11)
6	Color Temperature		Same as CH 6 in the mode “217ch” (p. 11)
7	Color Macro		Same as CH 7 in the mode “217ch” (p. 17)
8	Effects		Same as CH 8 in the mode “179ch” (p. 23)
9	Effects 2		Same as CH 9 in the mode “217ch” (p. 17)
10	Effects 2 Speed		Same as CH 10 in the mode “179ch” (p. 23)
11	Effects 2 Adjust 1		Same as CH 11 in the mode “217ch” (p. 18)
12	Color Macro 2		Same as CH 12 in the mode “217ch” (p. 18)
13	Background Dimmer		Same as CH 13 in the mode “97ch” (p. 26)
14	Dimmer		Same as CH 14 in the mode “97ch” (p. 26)

CH	Function	DMX	Description
15	Shutter		Same as CH 17 in the mode “217ch” (p. 19)
16	Zoom		Same as CH 18 in the mode “217ch” (p. 20)
17	Control		Same as CH 19 in the mode “217ch” (p. 20)
18	Red	0	Min
		1	Min ... Min > Max
		2–253	Min > Max
		254	Min > Max ... Max
		255	Max
19	Green	0	Min
		1	Min ... Min > Max
		2–253	Min > Max
		254	Min > Max ... Max
		255	Max
20	Blue	0	Min
		1	Min ... Min > Max
		2–253	Min > Max
		254	Min > Max ... Max
		255	Max
21	White	0	Min
		1	Min ... Min > Max
		2–253	Min > Max
		254	Min > Max ... Max
		255	Max

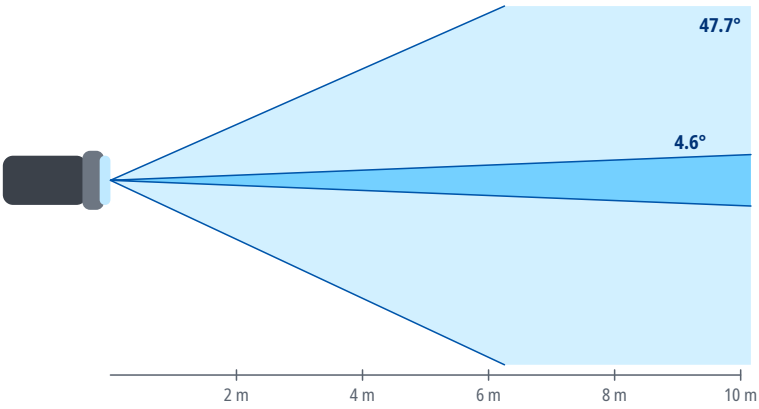
10 Technical specifications

Parameter	Value
Light source	LED
Zoom	4.6–47.7°
Pan	540°
Tilt	270°
Weight	15.1 kg
Operating temperature	0 to 40 °C

Speeds and ranges

Parameter	Value
Color temperature range	2700–19000 K
Strobe frequency	0.49–20 Hz

Spot diameter



Distance	Ø 4.6°	Ø 47.7°
2 m	0.16 m	1.8 m
4 m	0.32 m	3.5 m
6 m	0.48 m	5.3 m
8 m	0.64 m	7.1 m
10 m	0.8 m	8.8 m
15 m	1.2 m	13.3 m

Spot diameter square to the beam axis, calculated from the beam angle.

11 Maintenance and cleaning

- Before cleaning and maintenance, switch the device off, disconnect it from the power supply and let it cool down.
- Clean the housing with a soft, dry or slightly damp cloth. Do not use solvents, abrasive cleaners or pressure washers, and make sure no liquid gets into the device.
- Clean optical parts (lenses, front glass), if the device has any, with a soft lint-free cloth and a cleaner intended for optics or glass.
- Regularly inspect the housing, cables, connectors and fixings. Have damaged parts replaced by a service center.
- How often to clean depends on the environment; dust, smoke and fog make the device dirty much faster.

12 Troubleshooting

Problem	Remedy
The device does not switch on	Check the supply voltage, the cables and the fuse, if the device has one.
The device does not respond to DMX	Check the start address, the selected DMX mode and whether it matches the profile in the controller, the cable connection to DMX IN, and the controller output (universe).
The device behaves erratically or flickers	Check the terminator at the end of the line, the condition and wiring of the cables (shield on pin 1 only), the number of devices on the line (32 at most), and that the line is not split without a splitter.
Only some devices on the line respond	Check the cable and connectors between the last working and the first non-working device, and make sure all devices on the line are switched on.
Devices respond to the wrong channels or affect each other	Check that the addresses do not overlap and that the DMX mode on the devices matches the patch in the controller.
The device or the connected load does not light up although it receives DMX	Check the values of the dimmer, shutter and strobe channels against the DMX channel table. For the DMX modes for which the sources state it, the chapter DMX channels gives under the mode's heading which channels must be open.
Movement is reversed	Check whether Pan/Tilt inversion is enabled in the device menu or in the controller.
Moving parts do not reach the correct position after power-on or transport	Switch the device off and on again to reset the position, and make sure the transport lock, if any, is released. If this does not help, contact a service center.
Movement is jerky	Check the value of the Pan/Tilt speed channel, if the device has one, and the stability of the DMX signal.

13 Disposal

The crossed-out wheeled bin symbol on the product, in the manual or on the packaging means that the product must not be disposed of with unsorted household waste at the end of its life.

Take the end-of-life equipment to a collection point, for example a municipal collection site or a retailer. Proper disposal enables materials to be recycled and helps prevent possible negative effects on the environment and human health.

Follow the regulations applicable in your country; in the Czech Republic, take-back is governed by Act No. 542/2020 Coll., on End-of-Life Products.

Recycle the packaging materials according to their type.